• HEALTH •

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

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Notes by the Way

"Health is the foundation of all our physical happiness."—*Herder.*

Professor Struthers, of Aberdeen, well known for his efforts to diffuse science-teaching among teachers and the public, takes up the subject of physiology in schools in a communication to the *Lancet* of last week. Dr. Struthers writes vigorously, as is his wont, and enters a protest against the apparent "sneer" with which he thinks the *Lancet* dismissed the topic. The editor of that journal, however, remarks that the article which prompted Dr. Struthers' protest was meant merely to discourage "indiscriminate dabbling in physiology by persons who have the merest smattering of the subject." Our contemporary also insisted upon "very careful consideration in selecting fit and proper pupils to be taught, both with regard to age and social position." We are glad to note that Professor Struthers goes straight to the heart of the matter in condemning the idea that the broad facts and truths of human anatomy and physiology cannot be taught to intelligent school children with satisfactory results. It is, indeed, high time to protest against the attempt of what claims to be authoritative opinion, to discourage science-teaching in our schools. It is perfectly easy for any writer in the pages of any journal, lay or professional, to maintain that human physiology cannot be taught in schools. But, in criticising this opinion, we are entitled, firstly, to inquire specifically as to its source; secondly, regarding the experience which its author has had in the teaching he condemns; and thirdly, concerning the amount, extent, and nature of the science which, it is urged, cannot be taught in schools.

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Professor Struthers gives the following pungent passage regarding the utility of physiology, in his letter above referred to:—"That such knowledge is of use to all human beings, probably few persons who have reflected will doubt, even to the 'costermonger's son,' unless we are content to let him live and die like a beast, and to have for our own lofty ideal of life to eat and drink and make money. It is of no use, we are told, to try to explain things, but are just to tell the people what to do. But I do not believe, for instance, that anybody ever will attend properly to ventilation who does not know what oxygen and carbonic acid are and what goes on in the lungs; and yet there are probably more people carried to a premature grave by having avoidably breathed carbonic acid than by the abuse of alcohol. Then people nowadays, philosophers and others, who talk so much about mind, might with advantage first have a look at a brain and know something definite about its functions; and in these times, when everybody is discussing how mankind began, it would be well if people had some notion of the kind of knowledge which is necessary before one can be entitled to form an opinion on that rather important discussion."

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Now these words appear to our minds to settle the whole question at issue. The difference of opinion seems to be one less regarding the value of physiology at large in the care of health than concerning the nature and exact amount of the science it is advisable to impart to school-children. Into the technicalities of the subject no one can for a moment argue that it is possible or necessary to lead young persons. But it is exactly the abstruse parts of anatomy and physiology that are useless for all popular and sanitary purposes. The technicalities of brain-structure and nerve-action, or the discussion of vexed questions of blood-composition and chemical physiology, are examples of topics which no one would dream of even trying to teach senior boys or girls. But there is surely no reasonable person who denies that it is easy to impart to school-children a sound knowledge of the skeleton, the general conformation of the muscular system, the structure of muscle, the work of the heart, the nature of breathing, the functions of the skin, and allied topics. After all, one grain of practical experience in teaching is worth bushels of theoretical chaff, and we contend that not only are there many capable teachers ready and willing to teach physiology in schools, but that the results of such teaching as is now imparted are highly beneficial in placing our youth in possession of the knowledge that forms the only sound basis for the intelligent pursuit of the laws of health.

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Some interesting experiments have recently been made regarding the matter which consumptive patients cough up from their lungs. As most readers know, many able authorities hold that consumption is the result of the growth and propagation, within the lungs, of a microscopic living particle called a *bacillus*. A French experimenter, working with the matter brought up from the lungs of patients in the streets, has found that when a guinea-pig was inoculated with this matter (which had been frequently dried and remoistened in imitation of its treatment in the streets), the animal died of general consumption in about three months. The experimenter therefore concludes that it is of high importance to recognise that such matter may be offensive and dangerous to health, and may become a source of disease to those who are in any way predisposed to consumptive trouble. The danger incurred by a healthy person sharing the bed-room of a consumptive patient is also thus demonstrated anew.

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A curious item of intelligence comes from America, in the shape of an allegation that a new and curious disease affects those employed in the Treasury Department at Washington. It seems that amongst the women employed in counting notes sore hands are common and general ill-health frequent. These sores, according to the account

given by an official, are due to the presence of arsenic in the notes, and few, if any, of those engaged in the work in question, seem to escape these troubles. American enterprise, assuming the above statements to be correct, should be equal to the abolition of this evil.

* * *

The subject of "fires" relates itself in a very distinct fashion to the preservation of life, and the prevention of fire is a matter deserving the close attention of every householder. There are very few persons who organise within their houses any system, however simple, whereby, should fire break out, a timely arrest of the destructive agent may be effected. Yet the need for some such system is obvious, and the utility of such precautions is attested by the fact that in the vast majority of the fires occurring in cities the use of the handpump, or of a simple hose, is found perfectly effective in checking the conflagration—always provided the fireman arrives early upon the scene. In the first instance, it is the householder or his representatives who possess the means for checking a fire in the beginning of its course; but it is curious to reflect on the fact that it is rare to find, even in large houses, any provision made for extinguishing the enemy. Is it too much to expect that the ordinary dwelling house of the future will possess such means? or that architects and plumbers will together devise a simple adjustment of the waterpipes, whereby, at convenient points in the house, a hose could be attached, and a fire extinguished at the beginning of its career? Failing the possession of such appliances at present, paterfamilias might initiate many a less useful reform than the organisation of simple means—in the shape of handy buckets or hose kept within easy reach—for the prevention of fire and for insuring the safety of his household. Here is an admirable scheme in the shape of the idea of "Domestic Fire Prevention Appliances" for the further elaboration and practical attention of insurance offices, architects, and enterprising manufacturers generally.

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The "quack" advertisement nuisance seems to have taken a new lease of life in London, judging from the numerous letters (enclosing samples of the advertisements in question) we have of late received. Owing to the existing state of the law—which our readers will remember we tested by an appeal both to the Public Prosecutor and to the Director of Criminal Investigation—any quack may flood the streets of London with literature of obscene kind. As we write, this practice is being successfully carried on in Piccadilly, Regent-street, Oxford-street, and in other thoroughfares. Contrasted with the repression of the quack fraternity in Sheffield and elsewhere, the laxity of the law in the greatest city of the world is, to say the least, highly remarkable.

Medical and Sanitary Exhibition, 1881.—Award of Merit.—Diabetes. Van Abbott's Gluten Bread, and all other suitable Foods for Diabetic Patients. Dietary Tables and Price Lists post-free on application. Van Abbott, 5, Princes-street, Cavendish-square, W.—Delicate Children and Adults Suffering from Nervous Depression. Van Abbott's Hypophosphite of Lime Biscuits, for Delicate Children, especially those suffering from Deficiency of Bone, Weak Joints, or Debility, and Adults suffering from Nervous Depression. Each Biscuit contains five grains of the Hypophosphite of Lime. "Quite free from disagreeable taste, and taken willingly by Children, and certainly provide an excellent means of administering this valuable compound. Our analysis proves the accuracy of the printed descriptions on the labels of the boxes. The Biscuits were suggested by Mr. W. Adams, of the Orthopædic and Great Northern Hospitals." — *Lancet*, Nov. 4, 876.—Van Abbott, 5, Princes-street, Cavendish-square.—[Advt.]

Original Essays

"Life is not to live, but to be well."—*Martial.*

HOW TO BECOME THIN OR FAT.

By a Surgeon to Several Metropolitan Hospitals.

ELEVENTH AND CONCLUDING PAPER.

Breakfast should be taken about seven or eight o'clock, and the following articles are permissible:—Brown or white bread a day old, toast, rusks, and butter. This should be laid on with a moderate hand. Bacon, ham, one egg boiled or fried, some haddock, kippered herring, sardine, a kidney, or a piece of devilled game or poultry may be allowed; cold roast or boiled beef or mutton, with some fat, may be taken. Watercress is also a pleasant adjunct to the breakfast-table, and the patient may eat plentifully of them or of mustard-and-cress. As drinks, an ordinary breakfast-cup of strong tea or coffee, with a lump of white sugar and two teaspoonfuls of milk, if the patient like it; but tea without sugar or milk may be taken, or a slice of lemon should be added to it. A quarter of an hour after this meal the patient should walk to his office, or, if not engaged in business or in some professional capacity, should walk at least three miles out and home at a brisk pace; but if engaged in business, he should walk to the office, taking care not to get chilled, remembering that stout people, as a rule, perspire freely.

For *lunch*, which should be taken at 1 or 2 o'clock, a small plate of soup, a small quantity of roast or boiled red-meats, green vegetables plentifully, and potatoes in the following fashion:—They must be sliced very thin, and fried in fat until they become quite chippy, forming the dish known as "potato chips." These should only be taken in small quantity, and while I do not debar turnips, carrots, nor beetroot, still I allow them in very small quantity, and only very occasionally, because of the large amount of sugar they contain; but I find that some people have a strong liking for them, and when they know that, except in very small quantities, they are a sort of poison, the practitioner will find little difficulty in persuading them to take them only very occasionally or not at all. Salads with oil and vinegar, or with ordinary salad-dressing, may be freely allowed. Any kind of fish may be taken, but the richer kinds, such as salmon and eel, must be eaten sparingly. If sauces and pickles are liked, they may be allowed without stint.

Fish may be substituted for meat or fowl. Duck, goose, game, rabbit, hare, sweetbreads—any and all may be eaten. Cheese is also good; but the various cream cheeses should only be partaken of occasionally. Pastry is better avoided.

As drinks, a half-pint of good bitter ale, or a couple of large wine-glasses of sound claret, or a tumbler of sound, dry sherry-and-water, or two glasses of dry champagne, or some of the light acid foreign wines diluted with water, or with some mineral water such as soda, seltzer, potash, lithia, or Apollinaris. A little brandy-and-water may also be taken. The dry ciders also form agreeable drinks for people who are accustomed to them. Whether wine or cider be taken, it is desirable that all fermentation shall have ceased in them. Teetotalers must drink either water, toast-and-water, or cold tea, and as milk or sugar would not be agreeable at dinner, it is better without them.

Dinner should be taken at 7.30 or 8, and should consist of a choice of the articles allowed for lunch, and

may be washed down with one of the same drinks. A small cup of strong tea or coffee, with a teaspoonful of milk or cream, or with a teaspoonful of brandy, may be taken half an hour after dinner, when smoking may begin, which should be limited to two or three pipes of good tobacco or a couple of cigars in a similar favourable condition. The patient must never sleep after dinner, or at all in the day-time. Occasionally a dinner of several courses has to be taken, and if the patient will only take small quantities of several of these he may go through an ordinary *menu* without detriment. He must not mix his wines, and if fond of a glass of champagne should drink a little plain or mineral water till this appears on the table, and then, unless it be a good and *naturally dry* wine, should take hock, chablis, or claret. Half an hour's rest, *without sleep*, should follow dinner, and a smart walk of a couple of miles is then very beneficial.

At bed-time, which should not, as a rule, be before half-past eleven or twelve o'clock, a little toast with anchovy paste or sardines, or *pâte de foie gras*, or a devilled kidney, may be eaten if the patient be really hungry; but it is better to do without supper altogether. If the patient be in the habit of taking a nightcap, especially in the cold weather, a little cold or hot whisky-and-water, with lemon if preferred, but without sugar, may be taken, and the subject may then retire to the arms of Morpheus.

The *regimen* or mode of life consists in regular living as to hours of rest and work, regularity in taking the exercise ordered, systematic ablutions, and the like. A few guiding words on these points are needed. Fat people should rise early and retire late. 11.30 to 12 should be their bedtime, and 6 or 7 the hour for rising. Immediately on getting up a sponge-bath (or swimming, if it can be obtained) should be taken. This should be tepid in winter, cold during the rest of the year, and should be followed by brisk friction of the body with a rough towel for 10 minutes. The patient should dress quickly, then take a half-pint of cold water, and start for a brisk walk of at least a mile out and home, when breakfast will be thoroughly enjoyed. There can be no doubt that walking is the best form of exercise, but for those who can afford it riding is an excellent remedy, and should be regularly taken morning and afternoon, for an hour each time. Trotting brings most of the muscles into play, so that the horse should be kept on the trot for a large part of the time, and every now and again a good gallop will not only vary the monotony of trotting, but will rest the thigh muscles and bring those of respiration into full action.

The *surgical* treatment consists in the use of mechanical means for compression of the layers of fat around the abdomen and chest, and in the proper use of massage, gymnastics, and electricity. No operative measures can be of use in this disease. Only once has it been attempted to excise large masses of fat from over the abdomen. This was done by an Italian surgeon on a German duke, and resulted fatally. As massage and electricity cannot properly be applied by the patient, and as orthopædic gymnastics require teaching by example, rather than by description, no more need now be said about them.

Compression, when judiciously used, is of undoubted service, but an examination of the heart should be made before systematic and gradually increasing compression is adopted. I can recommend the belt known as Schramm's *Boncontour*, and am able to state that many ladies have expressed themselves thoroughly satisfied with its effects.

Though much more might be said on the subject of corpulence, I believe I have given the essentials of the matter, and were I to pass on to the consideration of the subjects of *leanness* and *poorness of blood* in a similar way, I fear I should exhaust the patience of our editor. Moreover, these are matters which require knowledge of diseased-processes, and make a call on pathology which is not to be expected from the majority of the readers of HEALTH. I shall deal with these subjects, however, in a shortly forthcoming *brochure* on corpulence and leanness.

SANITARY GOSSIP.

BY DR. THOMAS J. HUTCHINSON, F.R.G.S.I.

(*Corr. Mem. of Anthropological Society at Florence, &c., &c.*)

"An I prate of things here and there,
'Tis only *Gossip*."

FRESH AIR.

THERE are few axioms more truthful than that of Mrs. Campion in "Lothair," when she observed: "I look upon atmosphere as the main source of felicity." If we could live in the open air, and away from the partially corrupt atmosphere of towns, the natural laws of the rate at which the wind travels, would keep us in the way of an almost constant change of pure, fresh air. When circulating at only a mile per minute, it is scarcely perceptible; at from ten to twenty miles per minute, it is breezy; from thirty to fifty miles a minute, it is a gale; from fifty to seventy, it is a storm; and from eighty to 110 miles a minute, it is a hurricane. But as none of us desire to pass our lives in either gale, storm, or hurricane, and fresh air is indispensable for existence, let us consider a few points connected with the respiration for our bodies, and the ventilation of our dwelling-places.

The air consumed in breathing, by an adult man, is 16½ cubic feet per hour. That which is thrown out from the lungs at every expiration contains a larger proportion of carbonic acid than it had when entering the lungs, and to lower the amount of carbonic acid until it is only four parts in 10,000 (as in pure air), it is necessary to mix with each one part of vitiated air, 125 parts of pure atmosphere, or to suffer the alternative of being poisoned—slowly, no doubt, but eventually poisoned by the gradual action of the bad elements on your health. It is, therefore, not sufficient for a man to be supplied with the exact quantity of air which enables him to perform the function of breathing, but with 125 times that quantity, or about 2,000 feet per hour. This, however, only refers to a state of health, as a larger quantity by far is needed in case or sickness—for which, I must refer my readers to their family doctor.

That we are still in the dark regarding the meteorological phenomena which govern the atmosphere is evident from what is reported as occurring in the United States last July. We are told that a wave of intense heat passed, in the middle of that month, over the United States, causing the thermometer in some localities to approach 100 deg. Fahrenheit. The heat killed 672 infants in New York

SANITARY INSPECTIONS.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—THE SANITARY ENGINEERING CO., 115, Victoria-street, Westminster, S.W.—[ADVT.]

WEST GREEN, TOTTENHAM, WEST GREEN COLLEGE FOR LADIES.—The Principal, MISS BRISTED, A.C.P., receives young ladies to board and educate in a thorough English education. Good schoolroom, furnished with all improvements in lighting and ventilation. Separate Swedish desks. Scientific gymnastic classes held twice a week. The pupils' studies are varied by frequent change of occupation and physical exercise. MISS BRISTED'S pupils have been very successful in the local University examinations. Good garden and tennis-court. Prospectus on application.—[ADVT.]

city during the week. It also caused many cases of sunstroke throughout the country—six persons having died from this cause at New York on Saturday, three at Brooklyn, five at Philadelphia, and two at Jersey city.

While the inhabitants of New York were thus sweltering, a cold wave swept over from the north-west, causing fires to be lighted and overcoats to be worn at Chicago. On Sunday of the first week of July, in New York, Fahrenheit's thermometer at many houses lowered 35 deg., and copious rains were falling.

INTERNATIONAL HEALTH EXHIBITION.

THE following Sub-Committees, appointed by the Executive Council of the Exhibition, have met at the Society of Arts:—*Food* (Group I.).—Monday, Dec. 17. Present: Sir J. B. Lawes, Bart., LL.D., F.R.S., in the chair; Professor Church; Professor George Fleming, LL.D.; Sir B. T. Brandreth Gibbs; Professor H. N. Moseley, F.R.S.; Dr. David S. Price; Mr. John M. Thomson; Dr. Voelcker, F.R.S.; Mr. H. Trueman Wood. *The Dwelling House* (Group III.).—Friday, Dec. 14. Present: Sir Robert Rawlinson, C.B., in the chair; Dr. Alfred Carpenter; Mr. H. H. Collins, Mr. C. N. Cresswell; Mr. T. W. Cutler; Mr. J. Bailey Denton; Mr. W. Eassie; Mr. R. E. Farrand; Mr. Rogers Field, M. Inst. C.E.; Captain Douglas Galton, C.B., F.R.S.; Mr. George Godwin, F.R.S.; Mr. E. Hoole; Mr. Baldwin Latham; Mr. Shirley F. Murphy; Dr. G. V. Poore; Mr. George Shaw; Dr. Thorne Thorne; Mr. E. Turner, F.R.I.B.A.; Mr. George Vigers; Mr. H. Trueman Wood.—Wednesday, Dec. 19. Present: Captain Douglas Galton, C.B., F.R.S., in the chair; Mr. A. T. Atchison; Mr. W. R. E. Coles; Mr. H. H. Collins; Dr. Corfield; Mr. Thomas W. Cutler; Mr. Heisch; Mr. Baldwin Latham; Professor T. Hayter Lewis; Professor Chandler Roberts, F.R.S.; Mr. Frederic Scott; Mr. George Shaw; Mr. George Vigers; Mr. Greville Williams, F.R.S.; Mr. H. Trueman Wood. The School (Group IV.), and Education (Group VI.).—Tuesday, Dec. 18. Present: Mr. E. N. Buxton, in the chair; Mr. B. St. John Ackers; Dr. T. R. Armitage; Mr. J. G. Fitch; Dr. J. H. Gladstone, F.R.S.; Major-General Hammersley; Mr. T. C. Horsfall; Mr. A. C. King; Col. W. R. Lewis; Dep. Inspector-Gen. F. J. Mouat; Mr. E. R. Robson, F.R.I.B.A., F.S.A.; Mr. H. Trueman Wood. The Workshop (Group V.).—Saturday, Dec. 8. Present: Dr. G. Buchanan, F.R.S., in the chair; Dr. A. Dupré, F.R.S.; Mr. Alexander Redgrave; Mr. Gilbert Redgrave; Mr. H. Trueman Wood.—Saturday, Dec. 15. Present: Dr. George Buchanan, F.R.S., in the chair; Dr. Edward Ballard; Mr. J. H. Bridges; Mr. A. Redgrave; Mr. G. Redgrave; Mr. H. Trueman Wood; Mr. W. Woodall. *Sick and Ambulance.*—Tuesday, Dec. 18. Present: Director General Crawford, in the chair; Deputy Surgeon-General Bostock, C.B.; Brigade-Surgeon W. G. Don; Surgeon-Major G. J. H. Evatt; Mr. John Furley; Deputy Inspector-General F. J. Mouat; Director General John W. Reid; J. C. Steele, M.D.; Mr. H. Trueman Wood.

"LOCHINVAR" OLD SCOTCH WHISKY.—For invalids who are ordered whisky, or for those who use this valuable spirit to promote and aid digestion, it is important that the whisky *be well matured by age.* The "Lochinvar" is a blend of the finest Highland whiskies, and is *guaranteed five years old.* Sold by all wine merchants. Wholesale only of HILLS & UNDERWOOD, Eastcheap, London.—[ADVT.]

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

OUR USEFUL NOTE-BOOK.

"When found, make a note of."—*Captain Cuttle.*

Treatment of Premature Baldness.—Dr. Lassar writes to the following effect on the etiology and treatment of early baldness. From observation and experiment upon animals it was found that the disease is contagious, and occurs independently of any general affection or the state of health of the patient. The method of treatment recommended is as follows:—The scalp is to be washed every day with tar soap, or soft glycerine soap, or with soap containing sodium iodide; the soap is to be thoroughly applied, and rubbed into the scalp for fifteen minutes. Following this a warm douche is used; then, after the application of a corrosive sublimate solution (two parts in one thousand), the hair is dried, and a half per cent. spirit solution of naphthalin is rubbed into the affected parts. Carbolic or salicylic acid may also be employed. If this treatment be adopted in the early stage, when the hair is just beginning to fall, it usually proves successful, but it must be kept up for eight weeks or more. The fact that this disease is due to a communicable morbid principle, suggests that it may be conveyed by the comb and brush of the barber.

Vaseline.—Dr. Langlebert exhibited some time ago, at the Paris Therapeutical Society, some emulsions of vaseline, prepared by means of gum tragacanth, which held in suspension various medicinal principles, such as sulphate of zinc or copper, &c., and which may be employed for injections. The active substance of the injection becomes, so to say, more adherent to the diseased parts, with which it thus remains longer in contact than in the case of ordinary injections. These samples had been prepared for more than three weeks, and in only one of them was there any sign of a commencing separation of the vaseline. Moreover, this fatty body has the advantage over others of not becoming rancid. In answer to an observation by Dr. Créquy, that ointments prepared with vaseline are less fitted for the promotion of medicinal absorption than those made with lard, Dr. Vigier observed that, as the result of a series of researches he had made on this point, he had found that lard is the best fatty body when medicinal absorption is desired, vaseline coming next, and glycerine last. This last, therefore, is a bad vehicle when absorption by the skin is in view, but an excellent one when we wish to avoid this; so that we may by its aid avail ourselves of the insect-killing action of corrosive sublimate without fearing the production of mercurial poisoning.

The Treatment of Boils.—Dr. Gourgues claims speedy and excellent results in the treatment of boils by boracic acid. He employs an ointment of 4 grammes boracic acid in 20 grammes vaseline with ½ gramme benzoic acid. The boracic acid should be finely powdered and not dissolved in alcohol or glycerine. This ointment continuously applied relieves the pain promptly, and causes the disappearance of the boil in three or four days.

Treatment of Catarrh or Cold.—The following combination is stated by M. P. Vigier to have been used with good success in catarrhal affections:—℞ Picis liquidæ 1·0

DR. NICHOLS' PENNY VEGETARIAN COOKERY-BOOK.—Every household should possess this marvel of cheapness. Free for 1½d.—NICHOLS & Co., 23, Oxford-street, London, W.—[ADVT.]

gramme=15 grains; Benzoini 1·0 gm.=15 grains; Pulv. ipecac. et opii 1·0 gm.=15 grains. Mix. Make into ten pills. Take three pills daily between meals.

To Prevent Excessive Sweating.—One drachm of sulphate of quinine is to be dissolved in a pint of alcohol, and the body and limbs are to be bathed with it, a small surface at a time being exposed to prevent catching cold by evaporation. Dr. T. H. Currie, of Lebanon, is said to have found this efficacious during an experience of thirty years.

Circassian Pomade (*Circassian Cream*).—Oil of almonds, expressed, 4 parts; lard, 2 parts; benzoin pomade, 2 parts; rose pomade (French), 1 part; alkanet, q. s.; oil of rose, q. s. Melt the lard, pomades, and almond oil together on the water bath, colour them to the proper tint with alkanet, then remove the heat, stir until nearly cold, and add 8 to 10 drops of oil of rose for each pound of product. *Benzoin Pomade* is thus prepared:—Fresh beef tallow, 20 parts; fresh lard, 10 parts; benzoin, 6 parts. Melt the tallow and lard to a temperature of about 85° C. (185° F.), place in a melted mass the benzoin (in coarse pieces, tied in a muslin bag), and macerate for several hours, keeping the vessel well covered. Then strain and let cool.

Cucumber Pomade or Cream.—Oil of almonds, expressed, 40 parts; oil of sesame, 3 parts; wax, 2 parts; spermaceti, 3 parts; cucumber juice, 35 parts; oil of neroli, 1-16th part. The cucumber juice is obtained by pressing the cucumbers, raising the juice quickly to boiling, and filtering it through linen. In order to better preserve the aroma of cucumbers, it is advisable to prepare so-called "cucumber oil" by macerating cucumbers in the finest quality olive oil for twenty-four hours, and then using this in place of the almond oil. By adding freshly-expressed cucumber juice to fresh lard melted on the water-bath, the aroma may likewise be transferred to the lard which separates from the watery liquid on cooling. The aroma may further be imparted to oils or fat by so-called tincture or essence of cucumbers, which is prepared by digesting sliced cucumbers with a quantity of deodorised alcohol sufficient to cover them, and distilling the alcohol off after twenty-four hours.

Baking Powder.—Tartaric acid, 6 ozs.; bicarbonate of sodium, 8 ozs.; flour, 32 ozs.; mix.

Glass Labels.—When, as will sometimes occur in sudden change of weather, or from age, glass bottle-labels drop off, leaving the resinous layer, together with the lettering, adherent to the bottle, it may again be fastened by painting the glass and label with concentrated solution of white shellac, and holding the glass in place for a few days by means of an elastic band.

Suppositories for Piles.—℞—Iodoform, 1 drachm; balsam Peru, 2 drachms; cocoa butt., 1½ drachms; cera alba, 1½ drachms; calcined magnesia, 1 drachm. Mix. Incorporate the mass thoroughly and divide into twelve suppositories. Insert one after each evacuation of the bowels, and oftener, if needed.

SURGICAL EXPEDIENTS IN EMERGENCIES.

At the Medical Society of the State of Pennsylvania, Dr. Lewis recorded several surgical expedients in emergencies, in which the skill and readiness of the surgeon are often severely tested. Some of these suggestions were quite ingenious.

In *opening a vein* when a proper lancet is not at hand, an ordinary pocket-knife will answer, provided the vein be held in position by transfixing it with a needle after applying the ordinary bandage.

For *obstinate bleeding from the nose* requiring plugging of the nostril, a piece of sponge, to which a string is fastened, is forced through the front nostril to the hinder nostrils; small pieces of sponge are then to be threaded on this cord and pushed in succession into the passage until it is filled; when the danger of hæmorrhage is over, they can be removed by reversing this process. Another good method in an emergency, is to take a portion of the intestine of a chicken or other small animal, close one end, and pass it through the nostril; water or air may now be forced into the portion in the nostril so as to make equable compression. If it is necessary to plug the hinder nostrils, a slender gum bougie, or a piece of thick catgut ligature may be passed along the floor of the nostril and brought out under the soft palate; a string can then be attached and brought out of the nose in front by withdrawing the bougie; the sponge can then be employed in the usual manner.

A very efficient substitute for the *Esmarch elastic bandage* is a flannel roller cut bias. For dislodging and forcing downward a *foreign body in the gullet*, an ordinary carriage or riding-whip knotted sufficiently far from the end to ensure flexibility, may be used.

Good temporary *dressings for fractures*, may be extemporised by tearing palm-leaf fans into strips; a more permanent fixed dressing can be made by dipping ordinary sandpaper in hot water, and applying it while soft, it adapts itself to the shape of the limb, but becomes sufficiently strong and rigid afterwards; hard dressings can also be made with starch, or eggs and flour.

In moving a patient with *fractured thigh*, the sound limb may be made into a splint, by fastening the legs together. In treating fractures of the thigh, complicated apparatus is not necessary; simple extension by weights is all sufficient, the limb being kept in position by lateral supports or sand-bags. The postural method without splints is to be preferred in all fractures near to joints; fracture of the collar-bone is best treated by the resting or supine position, with the head slightly elevated.

Epigram.

"Perhaps," said a doctor one day to his friend,
"You remember a tale which you made me attend;
That tale, sir, much more than you think of, has cost,
It detained me so long, that a patient was lost!"
"Alas!" quoth the friend, "I'm quite sorry for that,
That your patient should suffer by my idle chat."
"He suffer!" the doctor replied with a sigh,
"No! he was a gainer! the sufferer was I
Nature popp'd in between, while I slackened my speed,
And the man had got well before I could get fee'd."

Rain leaders need not be trapped, except when their dipper ends terminate near garret windows. The best point at which to discharge a rain leader is the house end of the main trap, because it tends to keep it free from deposit.

The "Boncontour" Stay-Belt and other Orthopædic Apparatus, made by K. R. Schramm, Orthopædic Mechanician, 64, Belmont-street, Chalk Farm-road, London, W.—[Advt.]

Prize Medal National Health Society.—Houghton & Co., Practical Plumbers, Inspect and Report on House Drainage. Improvements carried out with all the best and latest inventions. Estimates Free. 21, Sloane-terrace, S.W. Established 1863.—[Advt.]

Barnes's Impermeable Opium Poultice, an effective and perfectly safe application for relief in neuralgia, gout, rheumatism, painful swellings, and lumbago. Prices by post 1s. 3d. and 2s. 5d. 1 and 2, Trevor-terrace, Knightsbridge, S.W.—[Advt.]

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

DRAIN AND CLOSET CONSTRUCTION, AND HEALTH.

BY B. H. THWAITE, F.C.S., A.M. INST. C.E., &c.

FOURTH PAPER.—HOUSE DRAINAGE ARRANGEMENTS (*continued*).

OFTEN the main sewer of the street is at such a shallow depth, that it is impossible to obtain a proper fall or inclination for the house drain; the remedy that should be adopted in this instance is to use a syphon flushing tank (such as that of Field's or Adam's). This appliance, as its name implies, acts by syphonic action, and consists of a small iron tank, having an inlet at its lowest level, for receiving the sewage coming from the house, and an outlet, for the continuation of the flow to the sewer, at its highest level; so that when the tank is filled with sewage to the height of this outlet, it passes off, thereby producing syphonic action, by which the whole of the sewage in the tank is withdrawn, and at such a velocity as to produce a considerable flushing action in the drain.

All drains, besides being connected with the rain-water fall pipes, should be periodically flushed with water, say once in every seven days. By the flushing action the drain will be freed from any deposit partially accumulating, and which, if allowed to continue, might become the source of much trouble and annoyance.

It will be seen by the clauses of the Public Health Acts before enumerated, that extensive powers are given to local authorities, or their official representatives in the matter of house drainage; and if the surveyor or official representative properly interprets the meaning of the powers given to him, defective drainage arrangements should—at least for new buildings—be the exception, and not, as they are unfortunately are, the rule.

Although the laying of drains is a work of such transcendent importance on the future *health character* of the house, it is usually left to carried out by the most ignorant and irresponsible of workmen. But let us hope that architects and others entrusted with the supervision of the erection of dwellings will become convinced, and act upon the conviction that this branch of constructional work should be carried out with care as great, if not greater, than that of the other branches of construction included in the building of dwellings.

Instances have already been given in the pages of HEALTH showing how dishonest and unscrupulous builders have allowed drains to end blindly, instead of connecting them to the main sewer.

The author has indeed known of instances in which builders have made a pretence of connecting the house-drains to the main sewer, but on future examination (rendered imperative by disease), the drains were found to terminate blindly at a short distance from the house. In one instance, in order to satisfy the surveyor of the Local Authority that the connection of the drain with the sewer had actually been made, the builder had opened out a trench near the sewer, and actually laid a few yards of pipe-drain from it. The surveyor, seeing this, was satisfied that the house-drain had been properly connected to the main sewer.

The opportunities for scamping work which are attached to the laying of drains are fully taken advantage of by the reckless builders; more especially by the type known as the "jerry builder." Instead of obtaining good, sound drain-pipes, he uses any old and broken pipes he can lay hold of; these he lays without any regard to regularity of fall. Up and down he lays them, and every few yards they form a capital cesspool, in which the sewage lodges or escapes through the imperfect joints, which are carelessly luted with gritty clay; or, if that is not obtainable, with ordinary earth, part of which is allowed to remain on the inside of the drain-pipe, where it acts as an obstacle to the flow of sewage, and often enough produces a complete stoppage. He is not particular whether the drains are properly and evenly bedded, as long as they are laid—no matter how; and covered up—what matters it? He soliloquises: "The defects will not be discovered for a considerable time, if even then."

As to the disconnecting traps, they are often placed unevenly, and thus the water, which should form a seal or trap for preventing the passage of the sewage gases, flows out, and the trap is destroyed, and the sewer-gases can enter freely into the house.

Although disease and death are often produced by the dishonest and unscrupulous manner in which the work of laying house-drains is carried out, yet the perpetrators of what should be a criminal action are allowed to escape, to re-perpetrate with impunity the action so pregnant with danger to the public health. What is required is an additional clause to the Public Health Acts making the action, proved wilful, of mal-drain construction punishable with severe imprisonment. Every drain, before the earth is covered over it, should be examined in every part of its length by some responsible and competent person, who should be empowered to insist on the carrying out of such alterations or additions to the drains as he may consider necessary to make them satisfactory. Mention has been made of the position of those important and necessary adjuncts to house-drains known as Disconnecting Traps, for preventing the passage of sewer gases into the house. In order to properly fulfil its functions, a sewer-trap should possess the following characteristics:—It should be made of incorrodible material, such as earthenware, stoneware, or fireclay. Oxidised iron traps have lately been introduced into the market, which certainly possess an advantage over those of earthenware, viz., that of strength.

The trap should be so designed as not to arrest, more than is absolutely necessary, the momentum of the sewage discharges. Its bends should not be square, or angular, but be nicely rounded; the seat of the trap, or the part projecting below the level of the water for preventing the passage of sewer gas from one side to the other, should not be too deep, otherwise the solids floating on the sewage will not pass under it, but will remain and accumulate on the house side of the trap. A seat projecting about $1\frac{1}{4}$ in. below the surface of the water in the trap is ample and effectual.

The trap should be well ventilated on each side of the seat, otherwise there will be a danger, when the drain-pipes are running full, of the water being withdrawn from the trap by syphonic action. If the traps are well ventilated there is no liability that the sewer gases will be forced through them when the sewers are flooded (as in the instance of a thunder-storm and heavy rain-fall), and the sewer gases are suddenly displaced and driven into the house drains, where they can escape by means of the ventilating pipe, on the sewer side of the trap. As a guide to the choice of traps, the following descriptions may be considered to be good models, and have been found to give highly satisfactory results; but any other trap possessing the qualifications enumerated should give equally satisfactory results:—

Pott's disconnecting (Edington) trap is a most useful

appliance for fixing near the outside house wall, as it is grated, and will serve as a gully, and is prepared for receiving the house wastes, as well as the rain water from fuel pipe. The only objection to this trap is its size, which is rather large.

Messrs. Stiff & Son's interceptor trap is admirably adapted for a position near the sewer end of the drain. Buchan & Banner's traps are also very satisfactory; and so, also, is Dodd's patent duplex trap, which is not only well ventilated, but is prepared for receiving the rain water from fall-pipes and all household wastes.

The ordinary lead "S" trap, commonly used for trapping sink waste-pipes, cannot be recommended. A better form of trap for sink purposes is that known as Antill's patent sink trap; but even this latter form is not free from imperfections, and the author would not advise the use of traps at all for slop sinks, baths, or lavatories, unless the waste pipes from the latter enter direct into the drain. In this case a trap is advisable, and the "Bower" ball trap may be used with advantage. The proper method, however, is to have the waste pipes conducted through the outside wall of the house, where they can discharge their contents over a trapped gully.

The disconnecting traps should be laid in a most careful manner, and be bedded firmly and level on a layer of concrete.

The soil pipe of the water-closet should be connected to the drain by means of a disconnecting trap, and into this latter, if possible, the rain-water from one of the fall pipes should be conducted.

Rainfall pipes are often the channel by which sewer gases obtain entrance into dwellings when they are directly connected to drains which are entrapped, and if the upper ends of the rainfall pipes terminate near a dormer window there is a clear channel for the passage of the sewer gas into the house through this window.

Rainfall pipes should not be directly connected to the drain, but should be arranged in such a way as to discharge their contents over the grating of a disconnecting trap—by this means the danger mentioned would be avoided.

THE DWELLINGS OF THE LONDON POOR.

THE following letters have passed between the Council of the Royal Institute of British Architects and Mr. Mark H. Judge, one of the directors of the Artizans', Labourers', and General Dwellings Company, the largest owners of improved cottage dwellings in the world:—"8, Park Place Villas, W., Dec. 12, 1883. John Macvicar Anderson, Esq., Honorary Secretary, and William Henry White, Esq., Secretary of the Royal Institute of British Architects. DEAR SIRS,—The important question of the condition of the habitations of the underpaid industrial classes and the abject poor, who may be described as the children of the community, inasmuch as they are powerless to help themselves, is now fortunately attracting the earnest attention of the public, and it therefore becomes of the utmost importance that reliable data should be forthcoming in order that the desire to improve the present state of things may bear fruit in wise action before the present wave of just indignation has spent itself. I therefore venture to suggest to the Council of the Institute, whether they would not be fulfilling a most important public duty at the present juncture if they could be the means of obtaining this reliable data. The question is one which cannot be solved without the knowledge and experience of the profession, and I beg, therefore, to ask the Council to consider the following proposal, viz.:—That the Royal Institute of British Architects appoint a special committee to inquire into and report on the condition of the dwellings of the London poor.—I am, dear Sir, yours faithfully, MARK H. JUDGE, Associate."——"Royal Institute of British Architects, 9, Conduit-street, Hanover-square, London, W. Dec. 20, 1883. Mark H. Judge, Esq. DEAR SIR,—We duly submitted to the Council of the Royal Institute of British Architects your letter of the 12th inst., in which you suggest that the Institute should appoint a special committee to inquire into and report on 'the conditions of the dwellings of the London poor.' We are to state in reply that, however much the Council may concur in the general wish to ameliorate the condition of those dwellings, the means at the disposal of the Institute for such a purpose are too small to penetrate the mass of difficulties which surround the question. A generation ago a member of the Council made a noble effort to call public attention to the then state of things, and those efforts have been since renewed from time to time. Persons in authority, just awakened to the facts of the position, may perhaps be astonished at finding so much already done by Mr. George Godwin to throw light upon a subject which at last appears to have been taken up in earnest. Indeed, the probability of an almost immediate appointment of a Royal Commission to inquire into the condition of the dwellings of the poorest classes in London is, perhaps, a proof of the magnitude of the task which you invite the Institute to undertake—a task which seems to us to concern the metropolis at large, and to be the duty of a responsible Government to organise and carry through.—We are, dear Sir, yours faithfully, J. MACVICAR ANDERSON, Hon. Secretary, WILLIAM H. WHITE, Secretary."

BRICKS.—The geological nature of a country always determines the character of its buildings. Where good natural building stone is abundant, it is sure to be quarried and used; but where this does not exist, recourse is had to some artificial material which will take its place. The material which has been more extensively used than any other is brick, the manufacture of which dates from the most remote antiquity of which we have any record. Herodotus relates that the walls of Babylon were constructed of this material, and there are numerous very interesting pictorial representations of brick-making and brick-laying in the hieroglyphic literature of ancient Egypt which has been preserved to us in stone blocks and mural tablets. Moreover, the existing ruins of some of the most ancient monuments of Egypt have enabled modern explorers to obtain specimens of bricks which must be several thousand years old, the great care taken in their manufacture and the extreme dryness of the climate having tended to preserve them. For instance, there is at Memphis a pyramid still partially standing built entirely of brick, and it is very probable that this was erected by Asychis, who succeeded the son of Cheops, the builder of the Great Pyramid. It is probable that burnt bricks, such as were used in this pyramid, were the exception, and that Egyptian bricks were for the most part sun-dried only, nearly all the common dwellings being constructed of this material, but burnt bricks were occasionally used.

NO MORE GAS OR LAMP USED IN DAYTIME.—Wherever there is a window, skylight, or fanlight, Chappuis' Daylight Reflectors can be adapted. They supersede all artificial light, and are manufactured at prices suitable for either noblemen's mansions or artisans' workshops. Prospectus sent on receipt of two stamps addressed (H.) Chappuis, patentee and manufacturer, 69, Fleet-street, London.—[ADVT.]

Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

PHYSICAL EDUCATION IN AMERICA.

BY D. A. SARGENT.

(*From the "North American Review."*)

FOURTH PAPER.

HAVING put up a building, the authorities proceed to fill it with apparatus made by the college carpenter. This is arranged for appearance sake rather than for use. The material is selected without regard to fitness, and put together with little knowledge of its object or design. Hanging ropes are made of hemp, and stiffly tarred to make them durable. This object is effected, for they are never used twice by the same person. The parallel bars are broad at the base and narrow at the top, so as to render the grip insecure; and they are generally made of some splintering material, in order to remind the performer which way he is going. The trapeze is bolted to a beam in the highest part of the room, and left pendent 25 ft. from the floor. Its bars are made of wood or iron, 2 in. in diameter, and, that the novice may have every opportunity of losing his balance, holes are made in the ends of each bar, the ropes put through and tied with knots underneath. The rungs on the horizontal ladder are three-quarters of an inch in diameter, and left rough, so that they may be firmly grasped, while in the vertical ladders they are smoothly polished. Both are carefully avoided, for, in the first case, every swing forward raises a blister; and in the second case every step upward is attended with positive danger. The sand-bag weighs 75 lb., and is covered with the heaviest kind of canvas. One solid blow removes the skin from every knuckle, and makes an impression that lasts for a lifetime. This performance is never repeated. The mattresses weigh 400 lb. each, and are filled with excelsior, or corn-husks, which from constant rolling have become matted together in lumps. One had better land upon the floor than upon one of these cradle-knolls, for the former only occasions a little tingling of the feet, while the latter invariably causes a sprained ankle. The weights are neither boxed in wood, nor framed in iron, but they start from a trough filled with sawdust and dirt. Every movement is accompanied by a cloud of dust and a deafening rattle and bang.

This is a fair representation of college gymnasiums throughout the country. They are built without intelligent plan, filled with heavy, cumbersome, and in many cases perilous apparatus, and then left open to the hap-hazard experiment of all who choose to try them. With however good intentions of self-improvement a student may enter a college, he is disheartened at the outset by such a gymnasium as this. He finds no appliances adapted to his needs as a beginner, and no provision for progressive development. Constant assistance and direction are offered him in every branch of college work save this; here he finds nothing worthy of the name of instruction. When we consider that two-thirds of the students who enter college are not strong enough to use the heavy apparatus with pleasure or profit, the need of introductory apparatus becomes apparent. Wooden dumb-bells and Indian clubs do not meet this need. Something is demanded by which the biceps and triceps may be brought into alternate action, and the muscles of the back, loins, abdomen, and chest, according to their requirements. If those desiring to use the heavy apparatus would prepare themselves for it by bringing the required muscles into gentle action at first, and would then go step by step through a progressive series of exercises, they would not only find themselves increasing in power, but they would experience a certain satisfaction and acquire a discipline from the accomplishment of difficult manœuvers, which no mechanical exertion can give. The apparatus which leads one gradually up to the beneficial use of the heavy appliances may be termed adjustable weights and pulleys. These can be so arranged as to act upon any set of muscles and be adapted to any condition of strength or weakness. In order that they may be used wisely, some one should be in attendance who has a thorough knowledge of animal mechanics and the action of the muscles, as well as a comprehensive idea of the structure and function of the various organs upon which vital action depends.

This brings us to a consideration of the men who are chosen to superintend the department of physical education. For every other branch of college instruction men of recognised ability are selected, and they are then required to maintain a certain standard of excellence. But in the department of physical culture the governing boards of our colleges have seen fit to make an exception. When we find the gymnasium almost deserted, there is a cause aside from poor apparatus and unattractive quarters. It is the lack of a suitable man, with sufficient authority, at the head of the department—a man who is a college graduate, a practical gymnast, and an educated physician. Such a man, we say, must have sufficient authority; for, unless he is supreme in his own department, and can have the co-operation of the faculty, he can do no better work than an inferior man with more freedom. Many instructors possess one or more of these qualifications. Thus, some are college graduates, others are educated physicians, and a few are practical gymnasts; but all the requirements are seldom found in the same person. This is only because there has been no demand for such men. So long as college boards look upon the position as one of minor importance, and pay but a mere pittance to its incumbent, men of ability will not undergo the training necessary to prepare them for its arduous duties. Consequently these positions to-day are occupied by men who are under-graduate students working for their tuition, students in medicine or law, tutors in some other branch of college instruction, or resident physicians. In only three or four instances are thoroughly trained gymnasts employed to superintend the gymnasium. Under such circumstances the men are obliged to make their gymnasium work a secondary consideration, and a man cannot do his whole duty by this department and attend to another at the same time. Yet this is what nearly every college instructor in gymnastics is doing. He intends to make his present position a stepping-stone to something else. He devotes as little time as possible to its duties, and expends his energies in preparing for his life's pursuit. As soon as he gets his diploma he resigns his position and makes room for the next incumbent. It matters little who his successor is, but to meet the demands of the times some one must be catalogued for the place. The demoralising effect of these annual changes can easily be imagined, and can readily be seen by those who care to visit our college gymnasiums.

We say, then, that the proper physical training of our youth can never be accomplished until our gymnasiums are put in good hygienic condition, are furnished with appropriate apparatus, and are placed in charge of thoroughly competent instructors. To these requirements we will add the most important one of all: that the gymnasium exer-

cises be made a part of the regular curriculum. So far as relates to the training of the mind, a system of required exercises has been universally adopted; but the training of the body has seldom been deemed of sufficient importance to merit like care and attention. We cannot but believe that this mistaken idea has arisen from a misconception of the real function of physical exercise, and of its powerful influence upon the system at large. So long as body and mind are kept in antagonism, and the demands of one thought to be prejudicial to the interests of the other, but little advancement can be made in physical education. But when it shall be generally known that the object of muscular exercise is not to develop muscle only, but to increase the functional capacity of the organs of respiration, circulation, and nutrition; not to gain in physical endurance merely, but to augment the working power of the brain; not to attain bodily health and beauty alone, but to break up morbid mental tendencies, to dispel the gloomy shadows of despondency, and to insure serenity of spirit; when men shall have learned that much of the ill-temper, malevolence, and uncharitableness which pervade society arises from feeble health, and that the great mental and moral disturbances which sometimes threaten the stability of a government may be traced to physical causes, then will the training of the body rival in dignity and importance the training of the mind, for the interests of mind and body will be recognised as inseparable. The time is coming, though as yet some of our best and greatest thinkers, while admitting the value of physical exercise as an agent of health, still doubt the expediency of making it a department of education. They argue that a college is designed to give a boy an intellectual training, and is in no way responsible for his health and physical welfare. But when we consider that it takes from six to twelve years for a boy to complete his education, that during this time he is almost constantly away from home, and that it is a period with him when the body is peculiarly susceptible to good or evil influences, it would seem that those under whose charge he is placed should have some intelligent care of his physical as well as of his mental and moral training.

The ideal of man and woman has changed from strength to culture, from body to brain. The great brawny-muscled man, who knows nothing of sickness, but has few ideas, is looked down on; the rosy mother of a dozen healthy children, who has no taste for books, is little thought of. It may be that the time will come when such people will be more highly appreciated.

Drugs in Japan.—The British Consul in Yokohama, in his summary of trade for last year, just published, gives as the total import value of drugs, medicines, and chemicals, the sum of (Mexican) 394,624 dols., to which amount quinine contributed 40,301 dols., and santonine nearly 25,000 dols., equal to 90,000 ounces. It is further stated that 34,000 pounds of bromide of potassium were imported. The importation of morphia amounted to about 6,000 ounces. The rapidly increasing employment of Western remedies, together with the increased popularity of our methods of treatment, based upon really scientific investigation into the causes of disease, contrasts very favourably with the slow and painfully conservative action of the native physicians of China.

Pure Water is such a vital necessity that, without it, illness is certain. None are more prone to the ill effects when impure than the young. To ensure a pure supply send a post-card to the London and General Water Purifying Company, Limited, 157, Strand, London, W.C., who will return particulars post free.—[Advt.]

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

Physical Education of Women.—Recently, Miss Chreiman gave a demonstration in the Vestry Hall, Hampstead, of her system of "gymnastic exercises" for young girls. Although the application of the term is quite correct, the word "gymnastic" will probably convey to most readers an erroneous idea of the nature of the exercises taught. They are intended, we are told, to develop the strength of every part of the body; to correct defects of carriage; to provide regulated and enjoyable exercise; and therefore, as a consequence, to impart flexibility and grace in movement and attitude, and a healthier growth of the body. The exercises are executed at the word of command, rhythmically, to music. There are exercises for the muscles moving the fingers, the wrists, the arms, and for the trunk. Light wooden dumb-bells are used in these exercises; and, in other exercises, long so-called bar-bells, about 4 ft. in length, are carried by the pupils, who go through a variety of manœuvres with these instruments. For other exercises, light Indian clubs are employed. On the occasion to which we refer, the performance concluded by the execution of a number of evolutions of the most complicated and various kinds, reminding the spectator alternately of the manœuvres of a squad of volunteers and of a country dance. The young pupils went through the exercises with wonderful steadiness and with evident enjoyment. We have no doubt that the system elaborated by Miss Chreiman is of great use in developing the muscular and respiratory systems of growing children; and not only so, but in encouraging a grace of pose and movement which the art of the *costumière* can never impart. We were forcibly reminded of the well-known words of Pope, as we watched the evolutions of the class. "True ease," he says,

"Comes from art, not chance,
As those move easiest who have learnt to dance."

In the days of Queen Anne, dancing was perhaps the nearest obtainable approach to "scientific gymnastic exercises." Dancing then did not consist in turning round on the tips of the toes a greater or less number of times in the minute, but was an exercise for the public performance of which much serious and private practice of complex manœuvres and attitudes, calling into play a great variety of muscles, was necessary.—*British Medical Journal.*

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The Health Exhibition and the City Guilds.—It is satisfactory to find that the great city companies are showing a disposition to take an active part in the Health Exhibition of next year. It would be strange, indeed, were they not to do so, and to manifest no eagerness to seize upon an opportunity of showing that among the revivals of the present age must be counted a revival of the sense of duty among the great guilds whose function it nominally is, and actually was, to control the leading industries of the country. Food, dress, the dwelling, the workshop, and education are all subjects in which the great companies are interested. A great deal of the food of Europe comes into London before it is distributed, and it is only proper that the guilds should concern themselves in a show which cannot be without its influence on the trade of the country. The subject of dress affords a great opportunity to the Merchant Taylors and the enlightened

guild of Clothworkers, whose efforts to improve a technical knowledge of woollen manufactures is well known in Bradford and other parts of Yorkshire, and who will now have a chance of proving to the citizens of London that they have a *raison d'être*. Seeing that a great proportion of the population is groaning beneath the grievous yoke of the plumber, it is to be hoped that the worshipful company which is supposed to interest itself in plumbing will really try to make the exhibits in this important branch of sanitary work of substantial use to workmen. Nearly all the companies are interested in education. Are they not the Trustees of Gresham College, and of many charities and other schools throughout the country, and will they fight shy of this opportunity of giving public account of their stewardship? The idea of forming a special city sub-committee is a very good one; and there can be no doubt that the City of London will stand next year as *facile princeps* among the great centres of industry which will compete for honours at South Kensington.—*Lancet.*

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A Conscientious "Sanitarian."—"I hate dark rooms," said Dr. Macdonald. "I won't have a curtain in the house, not even to the windows. Venetian blinds give all the shade I require; curtains are traps for dust, and therefore detrimental to Health." He always spoke of health with a capital H. It was the only good he recognised. All he did was with a view to attain it. He regularly partook of fish to form phosphates in the brain. A particular kind of brown bread was the only kind he tolerated. He drank water, and insisted that everyone under his authority should take a cold bath every morning. The opposition of his domestics to this arrangement had first made him think seriously of getting married. A mistress could better enforce the point. He used dumb-bells daily, and sometimes clubs for a quarter of an hour before dressing for dinner. He regulated his life with an excruciating precision, and was careful never to use his right hand without counterbalancing it afterwards by a use of his left. He considered that nine hundred and ninety-nine men and women out of one thousand are crooked from an exclusive use of the right hand; and every case of deafness or ear-ache which came to his knowledge he irrefragably traced to curvature of the spine, and his patients were astonished and mortified to learn that they were not only deaf, but deformed, and that the first thing to be done was to lie six hours daily on an inclined board he had himself invented for their delectation. When the horrified City gentlemen or stout country farmers protested against such a sentence, Dr. Macdonald observed, with contemptuous pity:—"My dear sir, what is life without Health? What is the use of success, or money, or pleasure, unless you have Health to enable you to enjoy it?"—*All the Year Round.*

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Left-handedness amongst the Ancient Hebrews.—Mr. Green writes as follows to the *British Medical Journal*:—"The subject on which Dr. Millward, of Cardiff, has so ably written in your journal—viz., Dr. Erlenmeyer's theory that the ancient Hebrews were a left-handed people—is a most interesting physiological question for medical men. History, however, does not support this theory. The Phœnician characters of the Moabite stone are the most ancient forms of Semitic letters within our reach, and date from about the year 900 B.C. Now this inscription reads from left to right, as we do in the present day. Such is the case also with the following Semitic records: The inscription on the tomb of Eshmunazer, King of Sidon: 600 B.C.; the tariff of fees in the Temple of Baal at Marseilles; the inscription from the necropolis at Tharros, in the Museum of Cagliari, Sardinia; the Carpentias inscription, an inscription from Carthage. We know from the characters on the coins of the Maccabæan princes, and upon some signet-stones, that the above Phœnician letters can be associated with the most ancient Hebrew letters. The practice of writing from right to left came into use about the time of Ezra, when probably the square form of the Hebrew characters began; the characters of the Samaritan and the Phœnician alphabets are nearly like those of the Moabite stone. The earliest Greek inscriptions, nearly allied with the Phœnician, are sometimes written from right to left; others from left to right. Others, again, show how the difference between the two methods was bridged over by the immediate practice of writing alternately—like an ox ploughing—and therefore called Boustrophedon writing. The general use of the late square Hebrew character, and the habit of writing it in the absurd traditional way we call "backwards," are great hindrances to the popularisation of Semitic research.

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Consumption is caused, in nine cases out of ten, by breathing bad air.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

SOME HOUSEHOLD HAND-BOOKS.

(1) *The Food We Eat; Why We Eat it; and Whence it Comes.* By J. Milner Fothergill, M.D. Edited by A. Beatrice R. Fothergill. (London: Griffith & Farran.)

(2) *The Young Wife's Own Book.* By Lionel A. Weatherly, M.D. (Same Publishers.)

(3) *Ambulance Lectures; or What to Do in Cases of Accident or Sudden Illness.* By Lionel A. Weatherly, M.D. (17th Thousand.)

Messrs. Griffith & Farran are to be complimented on the general excellence of the above three works, which form part of their "Household Hand-Books." The multiplication of such treatises is a sign of the times that the topic of health is receiving increased attention, and that year by year the people are beginning to see that the beginning of all wisdom consists in the conservation of their bodily powers and in the full enjoyment of the physical strength and robustness which good health includes and implies. The rules for healthy living are by no means of intricate nature; but they require study and reflection at the same time. Above all, the intelligent care of the body must be founded on an appreciation of the laws of our daily life, and on a knowledge of the processes and functions whereby the ends of life are discharged. The real value of a knowledge of "popular" anatomy and physiology to the public consists in the fact that such information forms the true basis of all health-knowledge. A man who pulls down a window, or who constructs a special apparatus to ventilate a room, for example, will certainly execute his work more efficiently and more intelligently when he understand how and why

he breathes, when he knows something of the need for fresh air as a factor in life's perfect working, and when he has learned the nature of the impurities which skin and lungs are always throwing off. Similarly, in the matter of foods and drinks—as we have before pointed out—it is only upon a knowledge of what physiology teaches respecting the nature of nutrition that sound opinions regarding food can be founded. "Health"is a matter of science, it is true; but it is a science, after all, which is readily learned, and which even our children at school, when properly taught its details, learn both to love and to understand.

We are glad to see that in the volumes under notice the above ideas are fully carried out. The authors treat these subjects from the scientific standpoint. They have not been content to give their reader merely the results of their studies, but lead him to know for himself the scientific basis of the information they disperse. Dr. Fothergill's book (1) is, on the whole, a satisfactory manual of "foods." Here and there we note a want of that "plain-speaking," if so we may term it, which is always essential for the success of the author who endeavours to instruct the public in scientific details. The author, for example, speaks (p. 13) of "hydrocarbonaceous matter," without explaining that this term is merely one for starches, sugars, and fats. He does not explain that the "pancreas" is the "sweetbread" of common life; and he speaks of the "lacteals" of the intestine, without further reference to the nature of these absorbent vessels. Dr. Fothergill is, however, more successful in the later parts of his work, and a vast deal of useful information is to be found in its pages regarding foods and aliments generally.

His remarks on "Artificial Digestive Agents" (abbreviated from the *Chemist and Druggist*) are worth quoting, inasmuch as the employment of these agents has come largely into vogue of late years as a means of aiding digestions which are enfeebled and weak :—

The first artificial digestive agent is extract of malt, which aids in the salivary digestion of starch. By exposure to heat and moisture the malster causes barley to germinate, just as it does in the ground; a ferment in the seed, diastase, converting the starch into sugar in the sprouts. This diatase is identical in composition and properties with the diatase of human saliva. So soon as the chemist had become assured of this fact, malt extract was ushered into the world as an aid to the salivary ferment when defective in quality or in amount. To utilise its properties, it must be given during the time salivary diastase is operative, *i.e.*, with the food when it is taken; or mixed with it just before it is taken; or immediately afterwards, before the stomach has become acid. The old rule of pudding before meat had much to recommend it from a physiological point of view. To farinaceous food, or better, farinaceous food and milk, malt extract may be added with advantage for children of feeble digestive power, or dyspeptic adults for that matter. One precaution is to be observed, and it is this: diastase is killed by a temperature of a little over 140 deg. Fahrenheit. To ascertain this without a thermometer can be done by sipping the mess. It cannot be sipped if hotter than 140 deg. Fahrenheit. When the nurse can sip the milk-pudding or gruel, then the malt extract can be added quite safely. Malt-extract is a sweet, molasses-looking, palatable substance, readily taken either with and in milk-pudding, or by itself. Beyond their value as a ferment, malt-extracts contain sugar and dextrine, nutritive matters, and the phosphates of the seed in a soluble form. Added to milk, malt-extract forms an excellent drink for babies, children, invalids, dyspeptics, and those whose digestion is impaired, as consumptives, the subjects of chronic Bright's disease, or of heart affections; or those whose livers either are easily upset or the seat of organic disease.

Then pepsin is utilised for the advantage of those who suffer from impared gastric digestion. It is prepared from the stomach of the calf, or, better still, the omnivorous pig. It is prepared as a wine or in pills. As the latter, it is readily taken, being put up in tasteless form, and easily swallowed without being observed. It is well to take the pill towards the close of a meal; a second being taken in about half-an-hour if any uncomfortable sensations are experienced.

N.B.—Though such artificial digestive agents can be utilised to help the stomach to contend with a meal unsuitable in character or amount, such use of pepsin is to be deprecated. Where there is a weak digestion resort to it is proper enough.

Then there are preparations of the pancreatic fluid, potent and efficacious, also prepared from animals. There is one difficulty about their use, and it is this, the pancreatic secretion operates in an alkaline medium, and the presence of acid is fatal to it. How, then, is it to be passed through the acid stomach? Dr. Wm. Roberts, F.R.S., of Manchester, has found that if the dose of pancreatic fluid be taken towards the end of gastric digestion (when the acidity of the stomach is being exhausted by the digestive act) under the guardianship of an alkali, its efficacy remains unimpaired. But alkalies are all nauseous to the taste. This must be submitted to—"what must be must; if we can't get crumb we must just take crust." Ten or fifteen grains of bicarbonate of soda, in solution, added to the pancreatic fluid preserve it against any acidity remaining in the stomach.

For those whose stomachs resent the presence of fats, oils already emulsionised contain much promise, and will probably soon be upon the market. Nature provides a wonderfully good form of emulsioned fat in the form of cream or milk. A tablespoonful of cream with a little Maraschino or Curaçoa is a delightful fat emulsion to be taken a couple of hours after a meal. Cod-liver oil ought not to be taken until the contents of the stomach are passing the pyloric ring, *i.e.*, till about two hours after the meal. If taken before, the oil only floats about in the stomach, offending that viscus, and interfering with its digestion. As a fat it should be taken when the digestion of fat is being inaugurated—not before. It or any other digestible oil could be taken with the pancreatic preparation if desired.

But the normal time and place of the digestive act must be observed in order to give the artificial digestive agents a fair and proper opportunity of being serviceable.

Here and there the revising pen of the editress has added a note, or comment, explanatory, and in some cases corrective, of the author's statements. It might, perhaps, have been more appropriate had the corrections and emendations been incorporated, without comment, in the text. But these are minor objections, and we may say that in Dr. Fothergill's book will be found many interesting details regarding the varied dietaries of the world—information which is not the less valuable because much of it is given in a pleasant, gossiping way.

Dr. Weatherly's first book (2) is addressed specially to young wives and mothers, and will be found a useful companion by the ladies of the household. It follows much the same lines as those taken by Chavasse, Bull, and others in their treatises on domestic medicine as applied to the care of infants and to the details connected with the lying-in-room and nursery. The author's language is clear, and his style colloquial, two features of high importance in inspiring an interest in the book and confidence in the facts and details it supplies. His remarks on women's clothing supply us with a good example of the sensible style in which he addresses his readers :—

Much has been written and said on this subject, and no one will question its importance. In this constantly changing climate of ours, where we have one day the sun shining and the air mild, and the next either a biting north-east wind or fog and rain, it is an impossibility to be always clothed suitably; yet, however difficult it may be, we should always try our best to maintain equally our body temperature, and this has to a very great extent to be done by our clothing.

How often does it happen that severe colds are caught, and the seeds of life-long illnesses sown, simply through leaving off our warm winter garments too soon! March is possibly ushered in with nice genial weather, and we imagine—but how vainly we soon find out to our cost—that summer is near at hand. Spring things are got ready, warm underclothing is discarded, and perhaps before a week is out we have colder weather than we have experienced throughout the whole winter. Bear in mind that it is far better to be too warmly clad on a warm day than too coldly clad on a cold one; and act up to this, and chills and their concomitants will be less liable to attack you.

The heat of our bodies is generated to a very great extent by the food we take, and proper clothing is necessary to enable the body to retain this heat, and not allow its too rapid departure from it.

All persons who are delicate on the chest, rheumatic, or have a tendency to intestinal troubles, should always wear flannel next their skin, and more particularly on the part of the body affected. The wearing of a flannel bandage round the bowels in the autumn will often save a person from the diarrhœal attacks so prevalent during that season.

Rheumatic persons, as also those who, from debility or some other cause, perspire freely at night, would act wisely by sleeping in flannel garments and between blankets. In the case of the rheumatic, this precaution would often very materially lessen, if not keep off altogether, the severity and frequency of the attacks.

And now let me say a few words to those martyrs of fashion about the direful results that are sure to happen if they continue to study appearance before health.

I am sure I need not dilate to you upon the endless troubles that are certain to be the outcome of that most pernicious habit, tight-lacing. Common-sense must tell you that to so alter your natural figure, and so compress, squeeze up, and consequently misplace your internal organs, cannot but be productive of serious mischief sometime or other.

The number of petticoats that women wear during the winter, with the consequent number of waist-bands belonging to those garments fastened round the waist, are injurious, causing congestion of those important internal organs in this region. A whole flannel undergarment, to cover the body and extremities, would be far warmer, and certainly far healthier. If petticoats are worn in numbers, be sure and see that the waist-band, instead of being fastened round the waist, is fastened round the hips, just at the upper part of the large bones of the pelvis, which can readily be felt, and no harm can then occur from pressure.

The continually changing fashions with regard to bonnets is most conducive to all sorts of throat affections, neuralgic attacks, &c. One year we find small bonnets, hardly covering the head, and with no strings, worn; and the next the fashion is to wear a large, warm headgear, with possibly wide ribbons tied under the chin; the latter probably being fashionable in the summer and the former in the winter, I suppose as a fair specimen of the perverseness of human nature.

The fashionably-made boot makes the foot look so nice, and the temptation to have a pretty foot is so great, that, in spite of the experience of the ill-effects from wearing tight boots, the evil is still indulged in; and what is the consequence? In the first place, corns for certain; possibly, too, bunions; then the toes become contracted, the joints of the foot deformed or even diseased, and the tightness of the boot causes cold feet from interrupted circulation. The high heels on boots are also most prejudicial to the wearer, for by their use the weight of the body is distributed on the wrong part of the foot.

Then, again, fashionable boots are generally made with thin soles, and the result is, if the ground be at all wet, damp feet, and this is often the actual cause of a severe cold. Therefore, if you want to keep your feet in a healthy state, and furthermore want to avoid colds and their consequences, be sure and have boots comfortably large enough, with low and broad heels, and soles of a reasonable thickness. For wet weather and winter use, a few nails in the boot help very materially to keep the feet dry, by raising the sole a little from the ground. In being measured for boots, see that the shoemaker takes your measure while your foot is on the ground, with your weight upon it, for there is a considerable difference in the width of the foot when resting your weight upon it, and when the weight is taken off.

Be always careful in the choice of waterproof cloaks, &c., which I allow are almost necessities when a person has to be about much in wet weather. See that they do not fit at all tightly, and so confine the perspiration. Nothing can be better than the Inverness-shaped waterproof, both for men and women; and I myself know that since I have worn one of these I have never had that weary and languid feeling that always came over me when I used to wear the ordinary waterproof coat.

Referring, again, to the question of wearing flannel next the skin, let me impress upon you the necessity of not leaving flannel under-garments off in the summer, for it is especially during that time of the year, when the skin is so freely perspiring, that, by having linen next the skin, colds are so often caught.

Last, but not least, if ever you get wet, either thoroughly or partially, delay no time in changing your damp things, and rubbing your skin well dry. Nothing is so dangerous as remaining in damp, wet clothes, more especially if you have been exerting yourself. This is a golden rule that cannot with impunity be broken by any single individual.

The book is divided into chapters dealing with the management of the mother's health, and with the welfare of the child. There is hardly a detail incidental to the health of both mother and infant, which is not duly noticed in this little work, the value of which should ensure it a place in the family medicine-chest as a true "friend in need" in any emergency, and in the ordinary conduct of the household life. We notice one error (p. 184) where the disease known as "Rickets" has been misprinted "Ricketts."

The "Ambulance Lectures" (3) written by Dr. Weatherly have attained a deserved success. The instruction given in this manual is that imparted by the author to ambulance classes. We think Dr. Weatherly might with advantage have omitted in a manual of ambulance such details as those given regarding "Digestion" and the "Nervous System." There is really little need for such information in a course of ambulance instruction, as the topics have only a very remote connection with the treatment of emergencies. Our experience of ambulance work has been that the fewer details of extrinsic nature which can be imported into such instruction the better. Persons unacquainted with anatomy and physiology are, in the first instance at least, most likely to appreciate ambulance instruction thoroughly, only when they are not troubled by too many extraneous facts.

The treatment of common accidents and injuries is described in a fashion which should be readily appreciated by any intelligent reader, and the illustrations with which the book is provided assist the comprehension of the details treated of in the text. The section on "Poisons" is, however, very deficient. Dr. Weatherly adopts a technical classification of poisons for which there is no need. People called in to treat a case of poisoning are not at all likely to trouble themselves about the class of poison in question. What they require is, firstly, to know the poison which has been swallowed, and the antidote therefor. If Dr. Weatherly had contented himself with giving the names (common and technical) of the ordinary poisons in one page, and with placing opposite each poison in another page its antidote, his work would have been infinitely more useful than as it at present stands. In the section on "Choking" (p. 62), the author does not distinguish between a foreign body in the windpipe or air passages and one in the gullet; and in sunstroke treatment we do not find that special mention of continuous cold applied to the nape of the neck, which the topic deserves. Excepting these, and a few other particulars, this little book may be commended. It cannot, however, hope to supplant such a complete manual as that of Esmarch, so favourably known through its translation into English by the Princess Christian.

Sanitary Appliances, Etc.

ELECTRICAL APPLIANCES.

THE Anglo-American "Brush" Light Corporation (Limited), of Belvedere-road, Lambeth, S.E., have just re-issued their full and complete catalogue of electrical appliances. The catalogue forms a handy guide and compendium to the latest improvements and inventions, in the direction of electric lighting especially. All health-reformers are bound to feel highly interested in the extension of electrical power and resources, inasmuch as the substitution of the electric light for gas—to mention but one item in the list—would tend to remove from human surroundings one fertile source of atmospheric contamination, and one which renders the problems of ventilation more and more complex, as gas-illumination tends to remain the staple source of light. The enterprise of a company like the above-named corporation reacts upon questions of health as affected by lighting, in that, whatever measures can bring a healthful light into the homes of the people, are to be regarded as beneficial in the extreme. In respect of the completeness of their electric furnishings, we should think the above company takes a

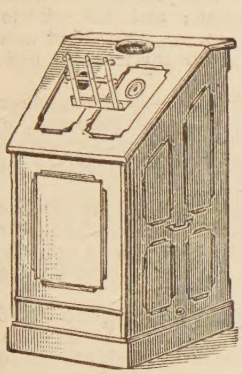
place in the first rank of manufacturers. The "Brush" system has, of course, been long and favourably known as a means of electric lighting, and those who are disposed to instal "the light of the future" in their premises, cannot do better than peruse the suggestive and interesting pages of this catalogue.

We specially note the completeness of their new system of incandescence or glow lighting—the light produced by the bright glow of a carbon-filament in vacuo—the Brush Corporation having made their great reputation, and being more generally known as purveyors of the Arc light, as displayed on so many of our railway stations, streets, and warehouses.

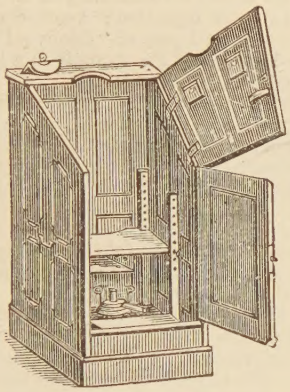
THE CABINET TURKISH BATH.

MESSRS. ELLIS & Co., of 165, Fleet-street, London, E.C., have produced in their Cabinet Turkish Bath an invention which is likely to revolutionise the old and cumbrous system of taking such a bath by means of a chair, lamp, sheets, and covers. The Turkish bath is generally regarded as a kind of luxury only attainable at bathing establishments and in like situations; but with Messrs. Ellis's invention at hand, every householder may enjoy this luxury at home, whilst every hotel and club can now number such a bath amongst the sanitary appliances and addenda of the establishment.

The Cabinet Turkish Bath provides a means of obtaining all the benefits of the ordinary Turkish Bath, without these attendant drawbacks. It is exceedingly simple, and consists of a neat cabinet, made of well-seasoned wood, taking up a floor space of only 2 ft. 5 in. by 2 ft. 8 in., and large enough to admit the person comfortably. It is mounted upon castors, so that it may easily be moved from place to place on the same floor; and it is light enough to be carried if required. But, providing that the head remains outside, all the inconvenience frequently arising from breathing the heated air is removed, though the head, nevertheless, perspires almost as freely as the rest of the body. It is fitted with a foot-



Bath shut.



Bath open.

warmer, and with an adjustable seat, so that it can be used by children and by adults of different sizes. A book-rest is arranged conveniently, so that the time may be pleasantly occupied, and small doors are provided through which the hands may be passed in order to turn over the leaves of a book, or to wipe the face, or to remove a cigar from the mouth, &c.

The bath is heated by gas, or, where gas is not available, by a lamp specially manufactured, in which spirit is burned. It may be managed with the greatest ease without the aid of an attendant, being, in fact, quite as simple as an ordinary sponge or sitz bath. It is only necessary to fill the foot-warmer with hot water, covering it with a piece of flannel, to light the lamp, and step into the bath with a towel round the neck to prevent the heat escaping too readily. Ample ventilation is allowed, so that the body is not exposed to the action of vitiated air, since this is constantly being renewed from outside. The bath constitutes, in fact, a small ventilated hot chamber, the time spent in which may vary from ten minutes to half-an-hour, according to pleasure.

Our illustrations show the bath open and shut. In the treatment of rheumatism this bath must prove an agent of the highest value; and as an ordinary health-measure for inducing that thorough cleansing of the skin so essential to health, its action is unrivalled and complete. The prices of this bath range from £5. 10s., as made in best pine, to £9, in black walnut. We have seen these baths in operation, and can cordially recommend them to the notice of the readers of HEALTH.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "THE PUBLISHER," *at the same address.*

Correspondents are requested to write on one side of the paper only The EDITOR *disclaims responsibility for the opinions expressed by Correspondents.*

LETTERS TO THE EDITOR.

NIGHT-CAPS AND SLEEP AND DREAMS.

SIR,—I do not know how far it may be proper, or permissible, to differ—in print—from the Editor of HEALTH, but as you seem not merely to repudiate my opinion, but also to impugn the accuracy of my *facts*, I venture to remind you that the brain and the outside of the cranium are supplied with blood respectively by two arteries which are branches of the common vessel, the internal and external carotids, which are subdivisions of the common carotid. If the neck were exposed so as to contract the common carotid, there would be no effort of the valves, I hypothecate, in the supply of blood to the brain; but, as a matter of fact, the whole body is covered with bed-clothes, and these are huddled up round the neck as high as the ear, and then the head proper is exposed to a lower temperature, which of late has been very low relatively. The result must be to contract the vessels of the temporal region, face, and scalp generally, thus delivering more than the due share of the blood which comes through the common or carotid artery to the internal carotid, at least on the side of the head that is uppermost. If this were not so, there would be nothing in the doctrines of "derivation" and "congestion." If you left the knee exposed, you would get "rheumatic" so-called—that is, *congestive* pain and stiffness in the joint. I believe that "dreaming" is more common when lying on the *back*, not, as is commonly supposed, because the back part of the brain is congested, which would simply give rise to a particular class of dreams, but because both external carotids are then commonly chilled and contracted. I am only concerned to justify my *reasons*, not to push my views.—Yours, &c., J. MORTIMER GRANVILLE.

P.S.—In my little work on "Sleep and Sleeplessness," I have pointed out that sleep is *not* the *propter hoc* of anæmia, as demonstrated by Vulpian and myself, but, without doubt, partial anæmia is a necessity of dreamlessness, unless indeed congestion be so extreme as to arrest consciousness by pressure.

[Readers of HEALTH know that our editorial policy has always been that of affording full opportunity for free discussion. In this spirit we give Dr. Granville's letter due prominence. We must, however, frankly confess that we are unable to follow his reasoning when he speaks of the contraction of the blood-vessels of the temporal region, face, and scalp, &c. We have much pleasure in offering Dr. Granville space in HEALTH for the fuller statement of his views, which, we are certain, will interest our readers. As these views at present stand expressed, we fail to see both their physiological correctness and their practical utility.—ED. *H.*]

QUERIES AND ANSWERS.

GENERAL.

[Many replies have been crowded out through pressure on our space. These will be duly noticed in our next number.]

G. AIREY.—If you had perused our remarks carefully, you would have found that we specially agreed with Dr. Richardson, that hanging, in the true sense of the word, did not involve dislocation of the neck. Hanging, pure and simple, kills by suffocation. Fracture of the spinal cord is a direct nervous injury.

C. C.—We do not know the journal. Inquire of Heywood, Manchester.

X. Y. Z.—Doubtless a misprint—at least, we have never heard of the firm.

BENEDICTUS.—A quack firm. Beware of them; they are well-known to the police, we believe. If they annoy you further, place the matter in the hands of a solicitor.

C. ARCHER.—No need to trouble; there was no danger.

J. THOMSON.—The lime-salts go chiefly to build the bones. Yes;

the bones of birds contain a very large percentage of phosphate of lime. "Periosteum" is the membrane covering the bone, and which possesses bone-forming powers. Chloride of sodium, or common salt, exists in relatively large quantity in the sweat.

ONTARIO.—Climate suitable and well adapted for you, we should think.

ANDERSON M.—See reply to "Benedictus," above.

B. G. E.—Dangerous as a cosmetic. We believe in time the use of cosmetics, however harmless, tends to injure the skin.

CORDIAL.—For the warts try a little aromatic vinegar cautiously applied, so as not to touch the surrounding skin.

P. PRESTON.—*Fer Bravais* is an elegant preparation of iron, which is unrivalled as a tonic. Its use is not attended by the constipating effects of ordinary "steel drops." This is why it is preferable to other preparations.

CECIL AUSTIN, G.—Read our recent papers on "Electrical Appliances," by Mr. Carpenter. All the "Restorers" we have seen (and we have seen most of them) are pieces of unblushing quackery, which do not evolve electricity, and which depend for whatever virtues they possess on the flannel of which they are composed.

UNDECIDED.—Try the former, by all means.

J. ARNOT.—Write to Mr. Flack, 74, Great Queen-street, W.C., for Syllabus of Dr. Wilson's Lectures.

SANITARY.

J. TATLOCK.—About 15 or 16, we think.

ABERDONIAN.—Condy's "Fluid," or "Sanitas"—use one or the other, but do not mix them.

EXCELSIOR.—Try the first-named. It will be found good.

BRIGHTON.—About 3 grains organic matter are excreted in twenty-four hours from an adult's lungs; but this matter is highly deleterious to health; and forms the substance which predisposes as a breeding-medium to typhus-fever.

MEDICAL.

E. SMITH.—Give up smoking at night for a time. Cleanse teeth and mouth at night, and take a little "Æsculap Water" or "Freidrichshall" in the mornings as a mild aperient. Look well to your digestion.

SPERO MELIORA.—The causes of such a condition are very numerous and varied—so much so, that it is difficult, without personal examination and full history, to say anything definite about the matter. If you care to send us a stamped addressed envelope, we will send you particulars which may be of service. Restate your case if you write again.

J. R. (GLASGOW).—You are foolish in your distrust of doctors, who see cases like yours every day. We should recommend you to live well; take a teaspoonful of Fellow's "Syrup of the Hypophosphites" in a wineglassful of water, thrice daily before food; to sleep on a hard mattress; to avoid fluids late at night; cold sponging in the morning; and rest. You will get quite well if you persevere in treatment recommended.

HEYWOOD.—For a time employ the tonic as recommended to "J. R." above, and follow the other items of treatment therein detailed.

W. J. B.—Your affection is rather a curious one. Have you ever suffered from gout or rheumatism? Pending your reply, we should advise you to wear very roomy boots (not elastic sides), and to try the effect of bathing the feet frequently each day in tepid water.

C. J. COGAN.—You are in need of rest. Our best advice is not to make yourself an example of educational "overwork." Go early to bed; take plenty of open-air exercise; and don't be over-anxious about your work. You ask us really to cure a condition you are daily begetting by your mental strain.

W. THACKARA.—Wear a flannel bandage across the loins and live generously. The tonic you name will do you good. A little cod-liver oil, daily, will also be of service to you. If not improved, write again, specifying habits, symptoms, &c., more fully.

W. F. GUY.—Your case is one for examination by a surgeon. There are evidences of some slight inflammatory action, which should be medically attended to. You will most likely be prescribed a belladonna lotion, rest, and a suspensory bandage. But you should see a surgeon without delay.

VICTOR.—See advice to "J. R." above. Your entire change of living may have made you a little weak; but there is no cause for alarm. Follow advice as above given.

U. B. E.—Tie the hands to the bed; or fasten them in some way which will not cause pain or prevent sleep. The cure must be a mechanical one of this description. Avoid fluids late at night.

X. Y. Z.—1. Your mother should see a physician. The "shortness of breath" may depend on a number of causes—the special cause only a personal examination can detect. 2. Try the lime pills recommended to "Ninon" in HEALTH, No. 37, and wash the skin with tepid water and Pear's soap frequently.

W. BONSER.—State your symptoms more fully, and we shall be glad to advise you. For the symptoms you name in your letter, we fancy a Pulvermacher's Belt will do good. Thanks for your good wishes. The second person named in your list is a notorious quack. Have nothing to do with him. The others are suspicious. Pulvermacher's are genuine electrical appliances.

CLERK.—We think you might, with advantage, take a little "Pepsine" along with your food; and for a time the tonic recommended to "J. R." in present number of HEALTH. Let us hear how you are in a week or so again.

SYLVIA.—Don't let the acid touch the neighbouring skin. Give up its use, and, after a day or two, apply aromatic vinegar to the wart.

CROMWELL.—We think your case one for rest (absolute, if possible, for a time); great care in avoiding digestive derangement and constipation especially. No medicines should be taken whatever, unless under your doctor's orders; as, in cases like yours, tampering with drugs is quite inadmissible. You seem fairly well now—rest is your sheet-anchor.

SCRUTATOR.—The idea that the body "changes" every seven years, or at any other period, is a popular delusion. Read any text-book of physiology (Huxley's, for example), and you will find that life is really a constant series of changes, which proceed every minute you live. Changes of chemical and physical kind are always going on within the body, and the very fact that you require food daily is a proof of this. Read the earlier articles in HEALTH by Mr. Manson, on "The Body and its Structures."

G. T.—Take the tonic recommended to "J. R." in present number of HEALTH, and live generously. No other treatment needed. Cold sponging might also do you good.

E. RICHARDSON.—See advice to "G. T." above. If not cured, write again.

MARJORY.—The affection you name may arise from a variety of causes. Generally speaking, it is a symptom of low health or of some internal trouble, rather than a disease. As a first advice to you, we should recommend you to see well to your general health. See to your digestion; avoid constipation; and use injections thrice daily of 1 part of "Condy's Fluid" to, say, 10 or 15 of water. Take 15 drops of *Fer Bravais* in a little water thrice daily, and if not better, write again.

ROSE.—Give up all stimulants for a time by way of experiment, and take the following mixture:—Carbonate of ammonia, one drachm; bicarbonate of potass, one and a half drachms; infusion of chiretta, six ounces. A tablespoonful thrice daily before food. Let us hear how you are in a short time.

G. ELLIOT.—Try the following, and report how you are in a short time:—Bitartrate of potass three drachms, infusion of buchu six ounces; a tablespoonful thrice daily. Live plainly, rest much, and take a hot bath every other night for a time. Above all, avoid stimulants, cold and wet feet.

E. H. H.—To your daily dietary we should feel inclined to add, for dinner, a little strong soup made of Brand's Beef Essence or similar preparation. We think you require such an addition to your diet. The climate which might suit you best would be a southern one. New Zealand or Australia for preference, or even the southern English coast, as you are not a confirmed invalid by any means. You might also (in winter) try the effect of a little cod-liver oil (or the emulsion), continued throughout the cold weathr, both as a tonic and a heat-producing food. Glad to be of any further service.

PREMATURE GREYNESS.—You should know and recognise that all hair-dyes are objectionable more or less; but where necessity of any kind exists for the use of a dye, the following may suit you:—Free the hair well from all grease, by washing with Eau de Cologne and water, or yolk of egg. A permanent brown colour can be produced by the following process:—Dissolve four grains sulphate of copper in an ounce of water; and dissolve also, separately, the same quantity of ferrocyanide of potassium (a poison) in an ounce of water. Apply them to the hair alternately with a piece of soft sponge. "Condy's Fluid" is also used as a hair-dye to produce a brown colour. We are not acquainted with the use of the dye you name.

EDINBURGH.—You do not give a clear account of your symptoms, but as we understand your case (a common one, unfortunately) we should say you ought to see well to your general health. Take the tonic recommended to "J. R." in the present No. of HEALTH; use injections of "Condy's Fluid" (1 to 10 or so of water) for a time, and let us hear how you are later on.

EN AVANT.—No; the tonic you are taking is eminently serviceable, and should be taken alone. You should see well to your general health. The medicine should be taken for a week or two, and then stopped.

HUSBANDMAN.—Clothe warmly; avoid constipation; see that no

[*Continued on page* 224.

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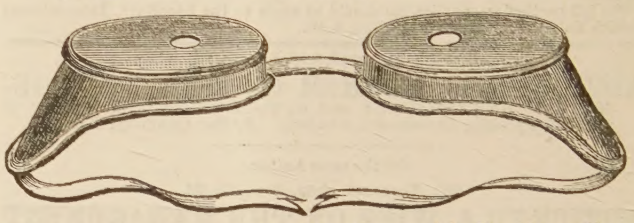

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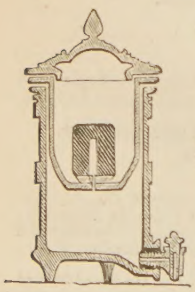

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